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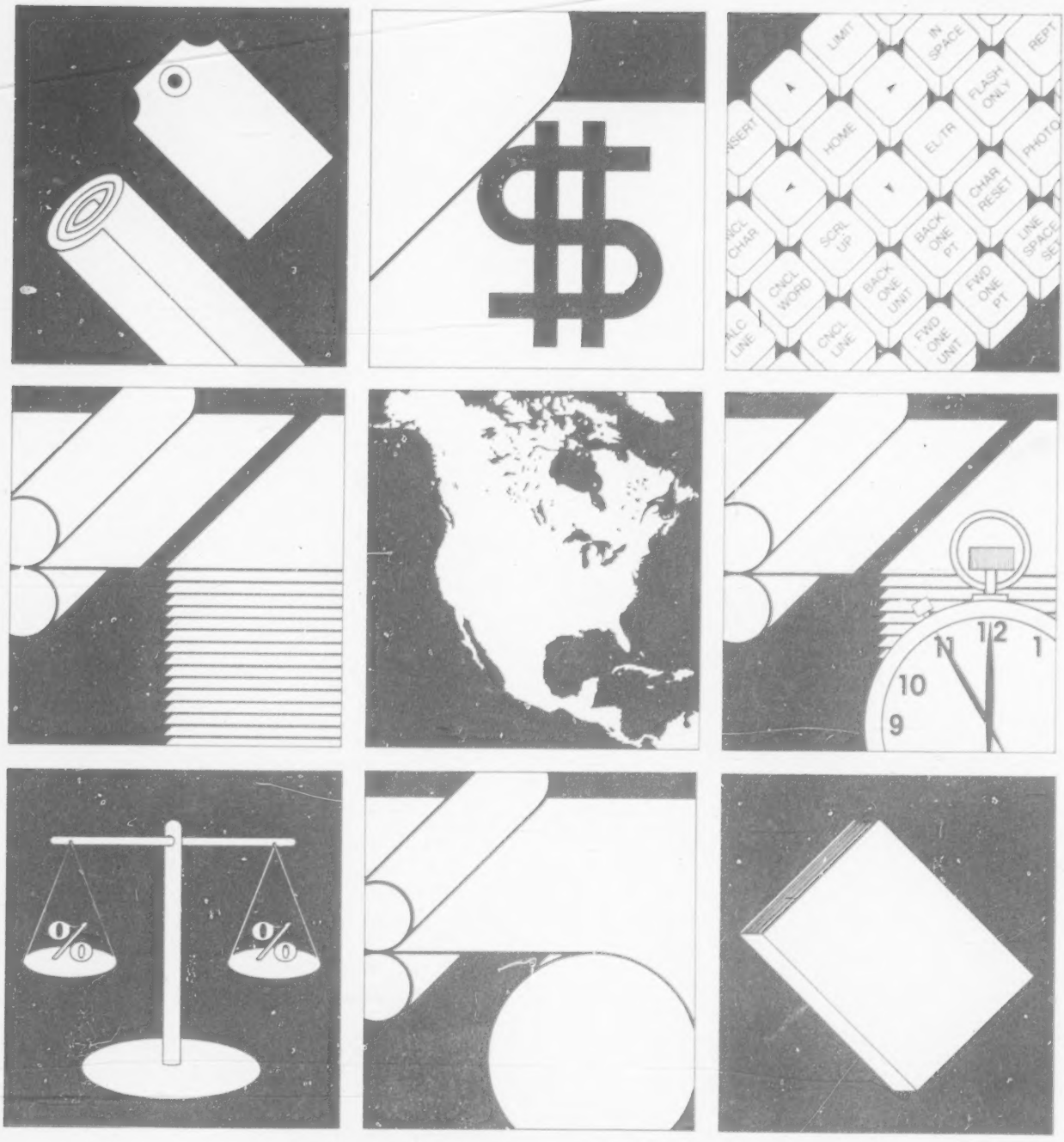
Printing Industries of America, Inc.

1984 Financial Ratios



Volume XIV
Quick Printers' Ratios

ABOUT PIA . . .

Printing Industries of America, Inc., is a federation of national, regional, state, and city associations composed of over 11,000 graphic arts firms. PIA and its affiliated associations comprise the largest trade association in the world dedicated to serving the interests of the graphic arts community. Membership in one of PIA's Affiliated Associations automatically entitles an organization PIA membership.

PIA's Management Services Department is active in financial management offering numerous publications, conferences, and seminars:

- Best & Worst Markets for Printers in the 1980s - a unique marketing and financial planning aid, available by subscription
- Cost Accounting for the Job Order Printer
- Graphic Arts Estimating, Volume I
- Money Making Guide to Printing Estimating, revised edition
- Sales Compensation in the Printing Industry - 1983
- Simplified Cost System
- Tax Planning for Your Graphic Arts Business
- Understanding Value Added
- Value Added Financial Management: A Guide for Printers
- 1981-82 Production Compensation Survey
- 1983 Survey of Sales Management: Practices and Compensation
- 1984 Executive Compensation Report
- Costing, Estimating, and Pricing Systems Conferences
- Managing your Printing Business Conferences

For information on any of the above contact the Management Services Department:

Printing Industries of America, Inc.
Management Services Department
1730 North Lynn Street
Arlington, Virginia 22209
(703) 841-8194

In addition, PIA Financial Services offers the following publications and seminars:

- The Annual PIA Financial Ratio Study - A Multinational Financial Survey
- Money Manager - A Monthly newsletter
- Reprints of "Economics and Financial Management" articles from issues of PIA Management News
- Financial Management Seminars
- Seminars on financial applications for microcomputers

For further information, contact:

William A. Rose, II
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61ST annual ratio study compiled from the operating statements and balance sheets submitted by representative members of the printing industry, and computed by RGS Enterprises, Inc., 1 Carlisle Drive, Arnold, Maryland 21012.

1984 FINANCIAL RATIOS

QUICK PRINTERS

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PRINTING INDUSTRIES OF AMERICA, INC.

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1730 North Lynn Street
Arlington, Virginia 22209

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Certified Public Accountants
New York and Philadelphia (Bala Cynwyd)

Printed in U.S.A.

PRINTING INDUSTRIES OF AMERICA, INC.
1730 North Lynn Street, Arlington, VA 22209 (703) 841-8100

Dear Colleague:

1984 is the 61st year in which Printing Industries of America, Inc. has collected and published detailed financial ratio information for members of the graphic arts community. The data presented each year provide a detailed and comprehensive picture of the financial status of the major segments of the U.S. and Canadian graphic arts industries. In addition, it allows individual firms to compare their annual performance with that of many other similar firms, including those which earn well above-average profits. Ratio results are published annually. They are summarized as follows:

- Management Guide to the PIA Ratios
- All Printers by Sales Volume
- All Printers by Product Specialty
- All Printers by Geographic Area
- Sheetfed Printers by Size and Geographic Area
- Web Offset Printers — Heatset
- Web Offset Printers — Non-Heatset
- Combination Offset — Sheetfed/Web
- Book Manufacturers' Ratios
- Large Printers' Ratios
- Typographers' Ratios
- Preparatory Specialists' Ratios
- Binders' Ratios
- Quick Printers

For a more complete composite picture of your company's performance relative to the U.S. and Canadian printing industry, several books could be used in your analysis, such as one of the overview volumes, e.g., *All Printers by Sales Volume*, and one that addresses your particular business segment or production process, e.g., *Book Manufacturers or Web Offset — Heatset*, respectively. Alternatively, such analysis is facilitated by participating in the Ratio Study each year and ordering an individual company computer printout which compares a participant's ratios to those of companies which are similar in size and sales volume, produce the same products, and use the same manufacturing process.

Please refer your questions on the PIA Ratio Study to your nearest local PIA affiliated association or to William A. Rose, II, Director of Financial Services, Printing Industries of America, Inc., 1730 North Lynn Street, Arlington, VA 22209 (703) 841-8145.

Jim Olsen
Vice-President, Management Services
Printing Industries of America, Inc.

Dear Quick Printers:

In the accompanying pages are the 1984 PIA FINANCIAL RATIOS FOR QUICK PRINTERS who participated in the 1984 Ratio Studies. This Ratio Study was developed on the basis of questionnaires volunteered by 31 firms and presents the ratios and statistics of Quick Printers by sales volume and location.

Thus the user of the report can direct himself to the standards for his sales size — for example, sales to $250,000, sales from $250,000 to $500,000, etc.; and by location — for example, Metropolitan Area and Non-Metropolitan Area. Readers can compare the data from their own firm's financial statements with similar data from other firms in four areas: Operations based on Sales and its Supporting Schedules, Balance Sheet Ratios, Significant Facts, and Return on Investment.

We strongly believe in the importance of sharing this type of information among members of the graphic arts community and are proud to have played a role in compiling these studies.

H.R. Margolis Company
Certified Public Accountants
Bala Cynwyd, Pennsylvania

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The American Quick Printing Association (AQPA), a special industry group of Printing Industries of America, Inc., represents quick printers. AQPA provides information and services of special interest and benefit to the quick printing segment of our industry.

AQPA endorses the annual PIA Financial Ratio Study and encourages their use. If you would like more information about the AQPA, please do not hesitate to contact me.

David F. Bacon
Executive Director, AQPA
President, PIAS

The Printing Industry Association
of the South, Inc. (PIAS)
1000 17th Avenue, South
Nashville, TN 37212
615/327-4444

CHAPTER 1 - BY SIZE OF FIRM

REPORT ON OPERATIONS - SALES = 100%

	ALL FIRMS REPORTING		SALES TO $250,000	
	ALL FIRMS	PROFIT LEADERS*	ALL FIRMS	PROFIT LEADERS
SALES OR VALUE OF PRODUCT PRODUCED	100.00%	100.00%	100.00%	100.00%
FACTORY COST OF PRODUCT				
MATERIALS				
Paper	17.50	16.44	16.20	15.85
Other chargeable materials	4.46	3.86	4.64	4.64
Outside services	6.78	6.17	8.16	7.67
TOTAL MATERIALS	28.74	26.47	29.00	28.16
FACTORY PAYROLL	23.96	21.34	22.47	19.99
FACTORY EXPENSES	19.35	19.43	21.48	22.41
TOTAL FACTORY COST OF PRODUCT	72.05	67.24	72.95	70.56
GROSS PROFIT	27.95	32.76	27.05	29.44
ADMINISTRATIVE AND SELLING EXPENSES				
Administrative expenses	14.31	10.63	15.00	4.98
Selling expenses	6.45	5.58	4.82	4.10
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	20.76	16.21	19.82	9.08
INCOME BEFORE INTEREST EXPENSE	7.19	16.55	7.23	20.36
Interest expense	1.50	1.08	1.46	1.17
OPERATING INCOME	5.69	15.47	5.77	19.19
Other income (expense)	(0.74)	(0.98)	(1.71)	(2.05)
INCOME BEFORE INCOME TAXES	4.95	14.49	4.06	17.14

SUPPORTING SCHEDULES - SALES = 100%

OTHER CHARGEABLE MATERIALS				
Ink	0.99%	0.65%	0.73%	0.37%
Film	0.82	0.91	0.71	0.86
Plates	1.53	0.95	1.62	0.77
Other chargeable materials	1.12	1.35	1.58	2.64
TOTAL OTHER CHARGEABLE MATERIALS	4.46	3.86	4.64	4.64
OUTSIDE SERVICES				
Composition	1.01	0.81	1.27	1.00
Offset preparation	0.48	0.29	0.47	0.00
Printing	4.14	4.76	5.36	5.35
Binding	0.30	0.08	0.45	0.35
Other outside services	0.85	0.23	0.61	0.97
TOTAL OUTSIDE SERVICES	6.78	6.17	8.16	7.67

* "Profit Leaders" are those firms which earned 8% or greater pretax profits on sales.

SALES FROM $250,000-$500,000		SALES FROM $500,000-$1,500,000	
ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
100.00%	100.00%	100.00%	100.00%
18.74	14.78	18.07	20.46
4.08	1.73	4.66	5.09
5.86	3.80	5.68	5.96
28.68	20.31	28.41	31.51
23.53	22.00	26.91	23.74
19.05	18.63	16.27	13.15
71.26	60.94	71.59	68.40
28.74	39.06	28.41	31.60
14.81	16.85	12.55	15.39
7.22	9.43	8.12	3.53
22.03	26.28	20.67	18.92
6.71	12.78	7.74	12.68
1.30	1.34	1.82	0.48
5.41	11.44	5.92	12.20
(0.52)	0.08	0.55	0.11
4.89	11.52	6.47	12.31
1.90%	0.93%	1.19%	0.83%
1.07	0.00	0.95	1.81
1.11	0.80	1.66	1.41
0.00	0.00	0.86	1.04
4.08	1.73	4.66	5.09
0.64	0.86	1.00	0.00
0.31	0.45	0.64	0.00
3.30	2.49	3.29	5.96
0.00	0.00	0.41	0.00
1.61	0.00	0.34	0.00
5.86	3.80	5.68	5.96

SUPPORTING SCHEDULES - SALES = 100%

	ALL FIRMS REPORTING		SALES TO $250,000	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
FACTORY PAYROLL				
Salaries - executive	1.67%	1.24%	1.27%	0.00%
Direct wages	17.45	15.61	14.92	14.60
General factory salaries and wages	1.31	1.07	2.15	1.69
Packing, shipping and delivery wages	0.44	0.43	0.52	0.22
Payroll taxes	1.96	1.91	2.63	2.42
Employee benefits	1.13	1.08	0.98	1.06
TOTAL FACTORY PAYROLL	23.96	21.34	22.47	19.99
FACTORY EXPENSES				
Fixed Expenses				
Depreciation - real estate	0.12	0.16	0.13	0.33
Depreciation - other	3.86	4.07	3.41	3.64
Taxes - real estate	0.10	0.08	0.10	0.07
Taxes - other	0.24	0.27	0.26	0.24
Insurance	0.79	0.97	1.00	1.32
Building rent	5.09	4.71	6.87	5.23
Utilities - heat, light, etc.	1.19	1.10	1.53	1.11
Equipment rental	3.83	3.59	3.93	4.13
Total Fixed Expenses	15.22	14.95	17.23	16.07
Other Expenses				
Factory supplies and expense	0.93	0.74	0.88	0.80
Packing, shipping and delivery expense	0.66	0.25	0.29	0.08
Repairs and maintenance	1.88	2.18	2.02	2.86
Other factory expenses	0.66	1.31	1.06	2.60
Total Other Expenses	4.13	4.48	4.25	6.34
TOTAL FACTORY EXPENSES	19.35	19.43	21.48	22.41
ADMINISTRATIVE EXPENSES				
Salaries - executive	6.70	3.18	7.95	0.00
Salaries - office	2.09	1.96	1.66	1.43
Payroll taxes	0.39	0.34	0.38	0.00
Employee benefits	0.48	0.22	0.57	0.03
Bad debts	0.36	0.24	0.27	0.38
Office supplies and expenses	0.72	0.80	0.69	0.77
Professional fees	1.12	0.99	1.22	0.96
Taxes - business	0.23	0.15	0.42	0.15
Telephone	0.86	0.73	0.89	0.62
Other administrative expenses	1.36	2.02	0.95	0.64
TOTAL ADMINISTRATIVE EXPENSES	14.31	10.63	15.00	4.98
SELLING EXPENSES				
Salaries - executive	1.31	0.58	0.72	0.00
Salaries and commissions - salesmen	1.00	1.03	0.00	0.00
Salaries - sales office clerical	0.49	0.52	0.33	0.00
Payroll taxes	0.14	0.06	0.08	0.00
Employee benefits	0.07	0.06	0.05	0.00
Advertising	1.87	1.74	1.76	1.42
Travel and entertainment	0.95	1.41	1.39	2.50
Other selling expenses	0.62	0.18	0.49	0.18
TOTAL SELLING EXPENSES	6.45	5.58	4.82	4.10

SALES FROM $250,000-$500,000		SALES FROM $500,000-$1,500,000	
ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
2.61%	4.00%	1.13%	0.22%
16.86	14.79	22.33	19.35
1.27	0.76	0.00	0.00
0.23	0.00	0.58	1.60
1.45	1.39	1.50	1.42
1.11	1.06	1.37	1.15
23.53	22.00	26.91	23.74
0.00	0.00	0.27	0.00
4.33	5.39	4.02	3.19
0.01	0.00	0.21	0.24
0.33	0.50	0.11	0.00
0.95	0.84	0.25	0.32
3.97	4.44	3.59	3.73
0.88	1.00	1.02	1.22
4.36	4.41	2.99	0.99
14.83	16.58	12.46	9.69
1.03	0.69	0.88	0.66
0.91	0.11	0.94	0.90
1.89	1.23	1.65	1.90
0.39	0.02	0.34	0.00
4.22	2.05	3.81	3.46
19.05	18.63	16.27	13.15
6.56	7.52	4.83	4.62
2.33	1.05	2.48	4.60
0.43	0.59	0.36	0.80
0.29	0.49	0.58	0.28
0.48	0.06	0.37	0.14
0.55	0.21	0.95	1.76
1.14	1.08	0.95	0.96
0.06	0.06	0.14	0.30
0.92	0.94	0.73	0.68
2.05	4.85	1.16	1.25
14.81	16.85	12.55	15.39
1.74	1.77	1.71	0.22
0.69	2.07	3.02	2.07
0.75	1.72	0.43	0.00
0.14	0.13	0.23	0.10
0.09	0.18	0.08	0.02
2.06	3.11	1.79	0.53
0.75	0.44	0.49	0.13
1.00	0.01	0.37	0.46
7.22	9.43	8.12	3.53

BALANCE SHEET

	ALL FIRMS REPORTING		SALES TO $250,000	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
ASSETS				
CURRENT ASSETS				
Cash	6.73%	9.82%	8.86%	10.98%
Receivables	24.25	17.89	16.69	13.44
Inventories	8.61	8.53	6.76	5.03
Other current assets	6.02	4.52	5.80	2.28
TOTAL CURRENT ASSETS	45.61	40.76	38.11	31.73
FIXED ASSETS				
Real estate	2.81	7.29	4.97	12.91
Less: Accumulated depreciation	0.97	1.98	1.52	3.95
	1.84	5.31	3.45	8.96
Machinery and equipment	81.65	87.12	90.28	101.61
Less: Accumulated depreciation	43.69	46.01	48.95	45.67
	37.96	41.11	41.33	55.94
Other fixed assets	13.94	8.46	19.71	7.28
Less: Accumulated depreciation	4.67	4.71	5.08	5.18
	9.27	3.75	14.63	2.10
NET FIXED ASSETS	49.07	50.17	59.41	67.00
OTHER ASSETS	5.32	9.07	2.48	1.27
TOTAL ASSETS	100.00	100.00	100.00	100.00
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Notes payable	12.48	13.23	11.85	11.03
Accounts payable	15.00	11.46	13.56	6.64
Other current liabilities	6.89	3.87	3.92	2.75
TOTAL CURRENT LIABILITIES	34.37	28.56	29.33	20.42
LONG-TERM LIABILITIES	43.63	25.32	63.53	30.07
TOTAL LIABILITIES	78.00	53.88	92.86	50.49
SHAREHOLDERS' AND PROPRIETORS' EQUITY	22.00	46.12	7.14	49.51
TOTAL LIABILITIES AND EQUITY	100.00	100.00	100.00	100.00

BALANCE SHEET RATIOS

CURRENT RATIO	1.33	1.43	1.30	1.55
QUICK RATIO	1.08	1.13	1.07	1.31
TOTAL LIABILITIES TO EQUITY	3.55	1.17	13.01	1.02
LONG-TERM LIABILITIES TO EQUITY	1.98	0.55	8.90	0.61
ACCUMULATED DEPRECIATION - MACHINERY AND EQUIPMENT TO TOTAL MACHINERY AND EQUIPMENT	0.54	0.53	0.54	0.45

SALES FROM $250,000-$500,000		SALES FROM $500,000-$1,500,000	
ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
5.18%	9.50%	5.19%	7.40%
28.57	14.90	31.10	33.51
8.77	13.72	11.44	9.53
4.19	0.41	8.67	16.26
46.71	38.53	56.40	66.70
0.84	2.79	1.76	0.00
0.00	0.00	1.28	0.00
0.84	2.79	0.48	0.00
80.02	89.93	69.68	46.68
44.95	60.85	33.56	24.61
35.07	29.08	36.12	22.07
7.27	2.59	12.90	20.21
2.43	0.86	6.82	9.32
4.84	1.73	6.08	10.89
40.75	33.60	42.68	32.96
12.54	27.87	0.92	0.34
100.00	100.00	100.00	100.00
18.16	23.38	6.46	3.52
22.83	25.23	7.54	2.84
5.37	1.15	13.60	10.76
46.36	49.76	27.60	17.12
30.03	31.47	28.29	4.20
76.39	81.23	55.89	21.32
23.61	18.77	44.11	78.68
100.00	100.00	100.00	100.00
1.01	0.77	2.04	3.90
0.82	0.50	1.63	3.34
3.24	4.33	1.27	0.27
1.27	1.68	0.64	0.05
0.56	0.68	0.48	0.53

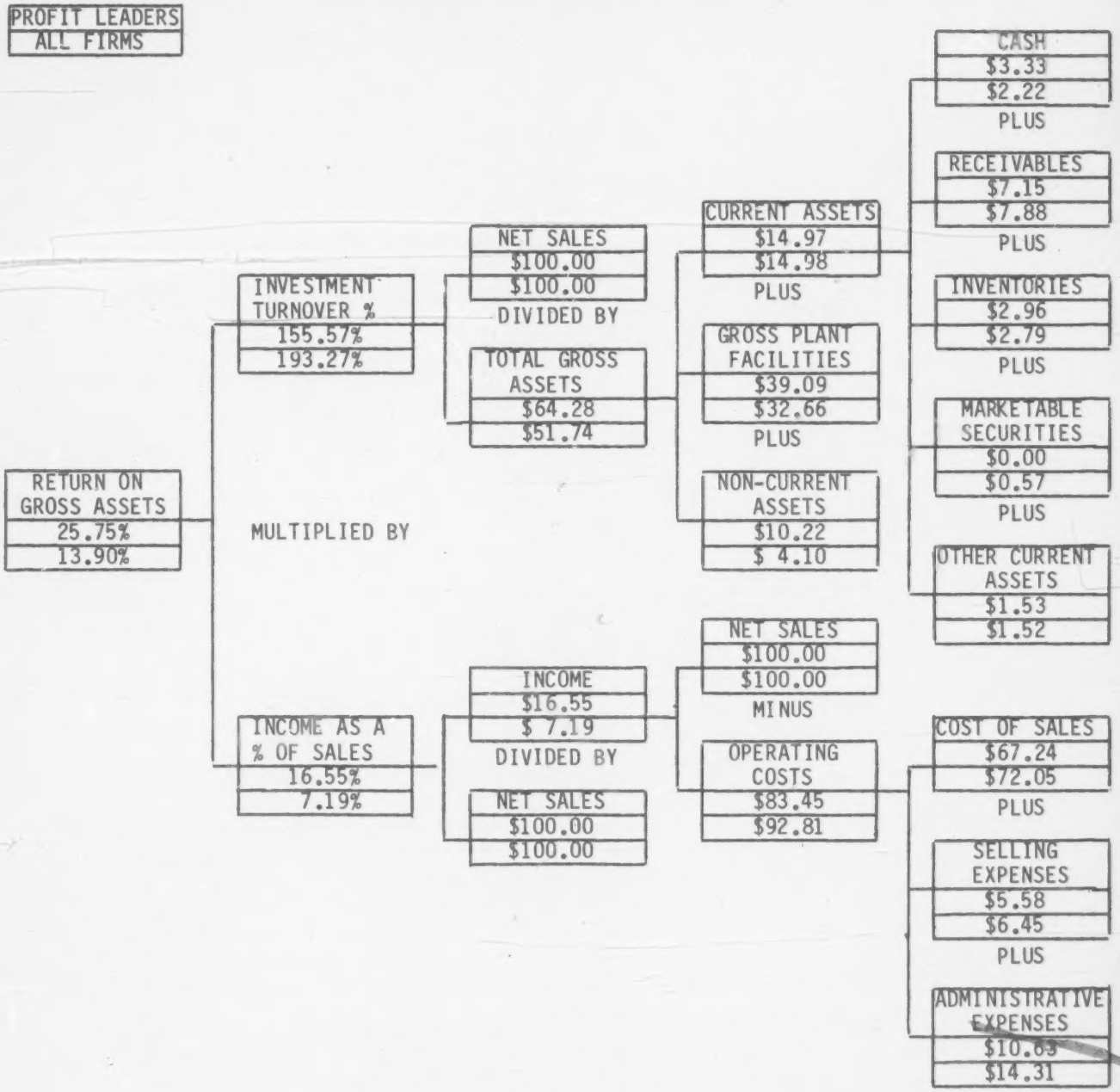
SIGNIFICANT FACTS

	ALL FIRMS REPORTING		SALES TO $250,000	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
INVESTMENT				
Average assets per employee - All employees	$ 17,605	$ 25,233	$ 18,769	$ 29,193
Average assets per factory employee (Excluding Executives)	26,761	37,883	28,012	37,928
Average net worth per employee - All employees	6,634	14,120	6,269	15,731
Average gross plant investment per factory employee (Excluding Executives)	24,758	31,752	31,761	41,236
Net worth percentage of fixed assets	59.95%	167.04%	(12.63)%	80.00%
EMPLOYEES				
Percent factory - All employees	74.38%	81.79%	73.86%	90.00%
Percent administrative - All employees	19.49	13.80	22.28	10.00
Percent sales - All employees	6.13	4.41	3.86	0.00
SALES - VALUE OF PRODUCT PRODUCED INCLUDING EXECUTIVES				
Sales per employee - All employees	$ 48,563	$ 60,673	$ 54,837	$ 77,732
Sales per factory employee	67,797	77,668	79,062	95,904
Sales less material per factory employee	48,562	58,085	56,804	71,327
Sales per administrative employee	209,843	157,316	92,951	36,343
EXCLUDING EXECUTIVES				
Sales per employee - All employees	60,731	65,428	71,491	77,732
Sales per factory employee	71,801	80,951	83,362	95,904
Sales less material per factory employee	51,348	60,419	59,682	71,327
SALES PER SALESMAN	251,703	0	0	0
SALES TO CURRENT ASSETS	906%	894%	1,120%	1,153%
PAYROLL - INCLUDING TAXES AND BENEFITS INCLUDING EXECUTIVES				
Total payroll percentage of sales	36.62%	29.27%	34.22%	21.46%
Factory payroll percentage of gross plant investment	96.67	62.52	72.94	44.81
Payroll per employee - All employees	$ 16,510	$ 15,803	$ 16,342	$ 15,647
Payroll per factory employee	15,098	15,692	15,966	17,900
Payroll per administrative employee	18,735	13,891	13,045	2,678
Payroll per sales employee	8,717	8,151	2,063	0
PAYROLL - EXCLUDING TAXES AND BENEFITS EXCLUDING EXECUTIVES				
Payroll per employee - All employees	$ 12,655	$ 12,546	$ 12,660	$ 13,026
Payroll per factory employee	12,682	12,707	13,148	14,063
Payroll per administrative employee	7,516	6,831	3,307	2,628
Payroll per sales employee	6,196	7,292	720	0
EXECUTIVE PAYROLL				
Payroll per executive - All executives	20,243	14,120	11,528	0
Payroll per factory executive	9,361	5,048	3,101	0
Payroll per administrative executive	20,811	15,766	11,581	0
Payroll per sales executive	8,703	5,012	1,781	0
RECEIVABLES				
Collection period	29.4	26.9	20.9	19.8
PROFIT				
Gross profit percentage of sales	27.95%	32.76%	27.05%	29.44%
Average gross profit per factory employee	$ 21,315	$ 27,535	$ 25,202	$ 31,270
Income before taxes percentage of sales	4.95%	14.49%	4.06%	17.14%
Average income before taxes per employee	$ 3,489	$ 9,723	$ 4,919	$ 14,112

SALES FROM $250,000-$500,000		SALES FROM $500,000-$1,500,000	
ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
$ 18,494	$ 24,567	$ 14,600	$ 16,331
30,222	48,475	20,401	21,885
7,173	12,292	6,553	12,835
21,912	27,183	16,935	14,897
99.82%	248.58%	128.07%	262.33%
73.27%	71.82%	76.64%	76.21%
20.17	16.59	14.10	19.14
6.56	11.59	9.26	4.65
$ 46,690	$ 43,726	$ 40,707	$ 43,445
64,294	61,062	53,871	56,985
45,872	48,714	38,531	39,035
261,662	275,505	335,019	282,465
58,033	57,729	46,617	46,215
69,187	71,689	56,280	57,462
49,395	56,277	40,249	39,364
0	0	251,703	0
848%	790%	632%	402%
36.55%	37.51%	40.62%	36.44%
99.11	67.07	132.19	99.95
$ 17,030	$ 16,134	$ 16,133	$ 15,696
14,971	13,452	13,846	13,534
22,999	26,693	22,588	22,720
8,471	12,151	19,839	22,528
$ 12,474	$ 11,620	$ 12,872	$ 12,732
12,359	10,888	12,329	12,044
9,960	8,986	11,299	14,108
4,334	10,095	17,422	21,315
26,095	24,509	27,089	33,834
14,317	11,686	13,340	7,708
26,412	25,748	28,807	40,208
7,740	9,000	21,155	11,562
33.5	23.2	37.9	50.0
28.74%	39.06%	28.41%	31.60%
$ 20,276	$ 27,580	$ 16,296	$ 18,132
4.89%	11.52%	6.47%	12.31%
$ 2,260	$ 5,267	$ 2,700	$ 5,434

RETURN ON INVESTMENT (ROI) CHART - ALL FIRMS REPORTING

RETURN ON INVESTMENT CHART - BASE: $100 OF SALES



RETURN ON INVESTMENT - PER $100 OF SALES

	SALES TO $250,000		SALES FROM $250,000-$500,000		SALES FROM $500,000-$1,500,000	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
INVESTMENT						
Current Assets:						
Cash	$ 3.21	$ 4.04	$ 1.57	$ 2.28	$ 1.42	$ 3.12
Receivables	5.54	5.22	9.08	6.32	10.18	13.23
Inventories	2.15	1.77	2.88	4.76	3.70	3.23
Marketable securities	0.39	0.00	1.27	0.00	0.00	0.00
Other current assets	1.29	0.81	0.41	0.23	3.29	5.29
	12.58	11.84	15.21	13.59	18.59	24.87
Plant Investment:						
Land and building	1.80	4.69	0.16	0.53	0.40	0.00
Machinery and equipment	28.72	37.21	27.81	34.54	24.03	18.05
Other fixed assets	5.60	2.97	3.06	3.10	4.65	7.96
	36.12	44.87	31.03	38.17	29.08	26.01
Non-Current Assets	0.77	0.58	11.44	33.01	0.33	0.15
TOTAL INVESTMENT	49.47	57.29	57.68	84.77	48.00	51.03
INVESTMENT TURNOVER PER $100 OF SALES	202.14%	174.55%	173.37%	117.97%	208.33%	195.96%
EARNINGS						
Cost of Product	$72.95	$70.56	$71.26	$60.94	$71.59	$68.40
Selling Expenses	4.82	4.10	7.22	9.43	8.12	3.53
Administrative Expenses	15.00	4.98	14.81	16.85	12.55	15.39
	92.77	79.64	93.29	87.22	92.26	87.32
Income Before Interest, Other Income (Expense), and Taxes	7.23	20.36	6.71	12.78	7.74	12.68
RETURN ON INVESTMENT - INVESTMENT TURNOVER X INCOME	14.61%	35.54%	11.63%	15.08%	16.12%	24.85%

CHAPTER 2 - BY METROPOLITAN AND NON-METROPOLITAN AREA

REPORT ON OPERATIONS - SALES = 100%

	METROPOLITAN		NON-METROPOLITAN	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
SALES OR VALUE OF PRODUCT PRODUCED	100.00%	100.00%	100.00%	100.00%
FACTORY COST OF PRODUCT				
MATERIALS				
Paper	18.13	18.22	14.25	13.79
Other chargeable materials	4.29	2.69	5.33	5.61
Outside services	7.16	8.28	4.81	3.00
TOTAL MATERIALS	29.58	29.19	24.39	22.40
FACTORY PAYROLL	24.78	21.89	19.69	20.52
FACTORY EXPENSES	18.79	16.37	22.29	24.01
TOTAL FACTORY COST OF PRODUCT	73.15	67.45	66.37	66.93
GROSS PROFIT	26.85	32.55	33.63	33.07
ADMINISTRATIVE AND SELLING EXPENSES				
Administrative expenses	14.83	10.86	11.56	10.26
Selling expenses	6.80	7.24	4.61	3.10
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	21.63	18.10	16.17	13.36
INCOME BEFORE INTEREST EXPENSE	5.22	14.45	17.46	19.71
Interest expense	1.50	1.12	1.48	1.03
OPERATING INCOME	3.72	13.33	15.98	18.68
Other (expense)	(0.62)	(1.44)	(1.41)	(0.30)
INCOME BEFORE INCOME TAXES	3.10	11.89	14.57	18.38

SUPPORTING SCHEDULES - SALES = 100%

OTHER CHARGEABLE MATERIALS				
Ink	1.10%	0.66%	0.43%	0.45%
Film	0.78	0.75	0.98	1.04
Plates	1.66	0.85	0.89	0.93
Other chargeable materials	0.75	0.43	3.03	3.19
TOTAL OTHER CHARGEABLE MATERIALS	4.29	2.69	5.33	5.61
OUTSIDE SERVICES				
Composition	1.08	1.09	0.63	0.39
Offset preparation	0.56	0.56	0.00	0.00
Printing	4.31	6.63	3.35	2.09
Binding	0.32	0.00	0.22	0.14
Other outside services	0.89	0.00	0.61	0.38
TOTAL OUTSIDE SERVICES	7.16	8.28	4.81	3.00

SUPPORTING SCHEDULES - SALES = 100%

	METROPOLITAN		NON-METROPOLITAN	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
FACTORY PAYROLL				
Salaries - executive	1.99%	2.07%	0.00%	0.00%
Direct wages	17.88	15.83	15.24	15.28
General factory salaries and wages	1.24	0.38	1.69	2.11
Packing, shipping and delivery wages	0.48	0.53	0.22	0.28
Payroll taxes	2.05	2.16	1.48	1.53
Employee benefits	1.14	0.92	1.06	1.32
TOTAL FACTORY PAYROLL	24.78	21.89	19.69	20.52
FACTORY EXPENSES				
Fixed Expenses				
Depreciation - real estate	0.08	0.00	0.33	0.41
Depreciation - other	3.92	4.25	3.55	3.81
Taxes - real estate	0.10	0.08	0.07	0.09
Taxes - other	0.24	0.26	0.25	0.29
Insurance	0.73	0.84	1.13	1.18
Building rent	5.30	5.25	4.05	3.85
Utilities - heat, light, etc.	1.22	1.15	1.05	1.03
Equipment rental	3.22	0.72	6.96	7.89
Total Fixed Expenses	14.81	12.55	17.39	18.55
Other Expenses				
Factory supplies and expense	0.97	0.62	0.74	0.92
Packing, shipping and delivery expense	0.77	0.34	0.09	0.11
Repairs and maintenance	1.83	2.33	2.10	1.97
Other factory expenses	0.41	0.53	1.97	2.46
Total Other Expenses	3.98	3.82	4.90	5.46
TOTAL FACTORY EXPENSES	18.79	16.37	22.29	24.01
ADMINISTRATIVE EXPENSES				
Salaries - executive	7.08	3.42	4.68	2.80
Salaries - office	2.49	3.26	0.00	0.00
Payroll taxes	0.41	0.41	0.31	0.23
Employee benefits	0.57	0.36	0.00	0.00
Bad debts	0.30	0.07	0.67	0.49
Office supplies and expenses	0.71	0.87	0.75	0.70
Professional fees	1.15	0.86	0.99	1.19
Taxes - business	0.28	0.25	0.00	0.00
Telephone	0.86	0.76	0.83	0.69
Other administrative expenses	0.98	0.60	3.33	4.16
TOTAL ADMINISTRATIVE EXPENSES	14.83	10.86	11.56	10.26
SELLING EXPENSES				
Salaries - executive	1.24	0.96	1.66	0.00
Salaries and commissions - salesmen	1.19	1.72	0.00	0.00
Salaries - sales office clerical	0.59	0.86	0.00	0.00
Payroll taxes	0.14	0.09	0.11	0.00
Employee benefits	0.08	0.10	0.00	0.00
Advertising	1.94	1.74	1.52	1.78
Travel and entertainment	0.92	1.61	1.12	1.10
Other selling expenses	0.70	0.16	0.20	0.22
TOTAL SELLING EXPENSES	6.80	7.24	4.61	3.10

BALANCE SHEET

	METROPOLITAN		NON-METROPOLITAN	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
ASSETS				
CURRENT ASSETS				
Cash	5.64%	6.38%	12.38%	14.96%
Receivables	26.43	21.70	12.89	12.19
Inventories	8.28	6.33	10.34	11.85
Other current assets	7.17	7.53	0.00	0.00
TOTAL CURRENT ASSETS	47.52	41.94	35.61	39.00
FIXED ASSETS				
Real estate	0.54	0.00	14.59	18.23
Less: Accumulated depreciation	0.39	0.00	3.96	4.94
	0.15	0.00	10.63	13.29
Machinery and equipment	76.02	76.11	110.94	103.63
Less: Accumulated depreciation	40.99	38.95	57.73	56.60
	35.03	37.16	53.21	47.03
Other fixed assets	15.57	9.56	5.45	6.81
Less: Accumulated depreciation	4.62	3.77	4.90	6.13
	10.95	5.79	0.55	0.68
NET FIXED ASSETS	46.13	42.95	64.39	61.00
OTHER ASSETS	6.35	15.11	0.00	0.00
TOTAL ASSETS	100.00	100.00	100.00	100.00
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Notes payable	11.02	9.10	20.14	19.43
Accounts payable	14.05	5.31	19.89	20.68
Other current liabilities	7.76	4.50	2.35	2.93
TOTAL CURRENT LIABILITIES	32.83	18.91	42.38	43.04
LONG-TERM LIABILITIES	43.40	11.64	44.84	45.83
TOTAL LIABILITIES	76.23	30.55	87.22	88.87
SHAREHOLDERS' AND PROPRIETORS' EQUITY	23.77	69.45	12.78	11.13
TOTAL LIABILITIES AND EQUITY	100.00	100.00	100.00	100.00

BALANCE SHEET RATIOS

CURRENT RATIO	1.45	2.22	0.84	0.91
QUICK RATIO	1.20	1.88	0.60	0.63
TOTAL LIABILITIES TO EQUITY	3.21	0.44	6.82	7.98
LONG-TERM LIABILITIES TO EQUITY	1.83	0.17	3.51	4.12
ACCUMULATED DEPRECIATION - MACHINERY AND EQUIPMENT TO TOTAL MACHINERY AND EQUIPMENT	0.54	0.51	0.52	0.55

	METROPOLITAN		NON-METROPOLITAN	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
INVESTMENT				
Average assets per employee - All employees	$ 17,089	$ 27,902	$ 20,286	$ 21,229
Average assets per factory employee (Excluding Executives)	27,613	48,661	22,328	21,717
Average net worth per employee - All employees	7,151	20,783	3,942	4,127
Average gross plant investment per factory employee (Excluding Executives)	23,944	34,549	28,989	27,557
Net worth percentage of fixed assets	70.90%	280.03%	3.02%	(2.45)%
EMPLOYEES				
Percent factory - All employees	71.39%	72.43%	90.00%	95.83%
Percent administrative - All employees	21.95	20.23	6.67	4.17
Percent sales - All employees	6.66	7.34	3.33	0.00
SALES - VALUE OF PRODUCT PRODUCED INCLUDING EXECUTIVES				
Sales per employee - All employees	$ 45,325	$ 55,654	$ 65,400	$ 68,202
Sales per factory employee	66,822	82,269	72,871	70,766
Sales less material per factory employee	47,388	60,419	54,664	54,583
Sales per administrative employee	225,855	210,905	126,579	76,933
EXCLUDING EXECUTIVES				
Sales per employee - All employees	58,396	61,869	72,871	70,766
Sales per factory employee	71,595	87,741	72,871	70,766
Sales less material per factory employee	50,711	64,311	54,664	54,583
SALES PER SALESMAN	251,703	0	0	0
SALES TO CURRENT ASSETS	828%	642%	1,315%	1,272%
PAYROLL - INCLUDING TAXES AND BENEFITS INCLUDING EXECUTIVES				
Total payroll percentage of sales	38.58%	33.08%	26.46%	23.56%
Factory payroll percentage of gross plant investment	105.19	66.93	52.40	55.91
Payroll per employee - All employees	$ 16,757	$ 17,089	$ 15,225	$ 13,875
Payroll per factory employee	15,503	17,547	12,991	12,911
Payroll per administrative employee	19,298	16,929	15,806	9,333
Payroll per sales employee	9,286	13,585	5,762	0
PAYROLL - EXCLUDING TAXES AND BENEFITS EXCLUDING EXECUTIVES				
Payroll per employee - All employees	$ 12,899	$ 13,470	$ 11,382	$ 11,159
Payroll per factory employee	12,932	13,739	11,382	11,159
Payroll per administrative employee	8,961	11,385	0	0
Payroll per sales employee	7,388	12,153	0	0
EXECUTIVE PAYROLL				
Payroll per executive - All executives	21,528	17,784	13,559	8,623
Payroll per factory executive	11,162	8,413	0	0
Payroll per administrative executive	21,963	20,528	14,819	8,623
Payroll per sales executive	9,338	8,354	5,400	0
RECEIVABLES				
Collection period	31.9	35.0	16.0	14.7
PROFIT				
Gross profit percentage of sales	26.85%	32.55%	33.63%	33.07%
Average gross profit per factory employee	$ 20,757	$ 30,577	$ 24,213	$ 22,972
Income before taxes percentage of sales	3.10%	11.89%	14.57%	18.38%
Average income before taxes per employee	$ 2,061	$ 7,051	$ 10,912	$ 13,731

RETURN ON INVESTMENT - PER $100 OF SALES

	METROPOLITAN		NON-METROPOLITAN	
	ALL FIRMS	PROFIT LEADERS	ALL FIRMS	PROFIT LEADERS
INVESTMENT				
Current Assets:				
Cash	$ 1.99	$ 2.79	$ 3.43	$ 4.13
Receivables	8.64	9.41	3.98	3.77
Inventories	2.80	2.91	2.69	3.04
Marketable securities	0.68	0.00	0.00	0.00
Other current assets	1.81	2.55	0.00	0.00
	15.92	17.66	10.10	10.94
Plant Investment:				
Land and building	0.12	0.00	5.01	6.26
Machinery and equipment	26.09	33.83	33.09	30.70
Other fixed assets	5.01	4.94	2.09	2.61
	31.22	38.77	40.19	39.57
Non-Current Assets	4.88	17.04	0.00	0.00
TOTAL INVESTMENT	52.02	73.47	50.29	50.51
INVESTMENT TURNOVER PER $100 OF SALES	192.23%	136.11%	198.85%	197.98%
EARNINGS				
Cost of Product	$73.15	$67.45	$66.37	$66.93
Selling Expenses	6.80	7.24	4.61	3.10
Administrative Expenses	14.83	10.86	11.56	10.26
	94.78	85.55	82.54	80.29
Income Before Interest, Other (Expense), and Taxes	5.22	14.45	17.46	19.71
RETURN ON INVESTMENT - INVESTMENT TURNOVER X INCOME	10.03%	19.67%	34.72%	39.02%

ABSOLUTE DATA

	NUMBER OF PARTICIPATING FIRMS	AVERAGE FIRM REPORTING** TOTAL ASSETS	SALES OR VALUE OF PRODUCTION	TOTAL INCOME
TOTAL - ALL FIRMS	31	$131,000	$377,000	$ 22,000
TOTAL - PROFIT LEADERS*	10	139,000	327,000	45,000
BY SIZE OF FIRM				
ALL FIRMS				
0-$250,000	13	57,000	172,000	10,000
$250,000-$500,000	10	131,000	337,000	15,000
$500,000-$1,500,000	8	251,000	763,000	51,000
PROFIT LEADERS				
0-$250,000	5	67,000	178,000	30,000
$250,000-$500,000	3	162,000	274,000	33,000
$500,000-$1,500,000	2	281,000	779,000	101,000
BY AREA				
ALL FIRMS				
Metropolitan	26	143,000	405,000	21,000
Non-Metropolitan	5	70,000	236,000	30,000
PROFIT LEADERS				
Metropolitan	6	189,000	403,000	49,000
Non-Metropolitan	4	63,000	214,000	39,000

HOW THE NUMBERS ARE COMPUTED

The PIA Ratios are computed by the method of relative or common size. With this method each company's dollars are converted into a percentage to the total. Then these percentages are added in total and within a given sales class. This is a very simple way of avoiding what is known as self-weighting when various magnitudes are involved. With this method each company is given equal weight regardless of its size.

The following example illustrates how this calculation process eliminates the problem of the ratios giving inordinate weight to the results of very large firms.

Firm	Sales	Factory Payroll	% of Sales: Firm's Ratio Factory Payroll	% of Sales: PIA Ratio Factory Payroll
A	$ 200,000	$ 60,000	30.0%	
B	500,000	100,000	20.0	
C	8,000,000	975,000	12.2	
			62.2% divided by 3 = 20.7%	

* "Profit Leaders" are those firms which earned 8% or greater pretax profits on sales.
** Unlike the ratios shown in this book, these figures are arithmetic averages.

BASIC GUIDE TO USING YOUR QUICK PRINTERS' RATIO STUDY

You have to know where you stand to make accurate decisions concerning your future. This guide to the ratio study, provided by the American Quick Printing Association, will give you a brief explanation of the purpose of the ratio study and a basic procedure to use to assess information about your shop.

The PURPOSE of the Quick Printers' Ratio Study is to serve as a guide to problem areas in your shop which can inhibit your growth and profitability. The study pinpoints:

- Where other quick printers of your sales volume and in a similar market area are financially.
- Profit leaders in your sales volume and market area.
- Problem areas, specifically from paper costs to getting a return on your investments, that are not pulling their weight that need attention because they are decreasing your profits.

WHY RATIOS? This financial study is presented in percentage form based on sales. Therefore, convert your statements to percentages of your sales volume to make specific comparisons. The PIA Ratio Study Program utilizes percentages because dollar amounts can vary for each quick printing shop, but percentages with the base of 100% of sales volume provide a common base for more accurate comparison.

BASIC PROCEDURE to use the Quick Printers' Ratio Study is to prepare your Statement of Operations and Balance Sheet, based on your sales volume figure percentages. You can do this, one item at a time comparing each item as you progress...or convert your information at one time, then compare taking special note of problem areas. If you participated in the study, it is a good idea to get your copy of your input and the Chart of Accounts provided by PIA to refresh your understanding of the data.

Compare your percentages to the profit leaders in your sales volume category in Chapter 1, then in your type of market in Chapter 2. If you see a large discrepancey in a particular area, multiply and convert the figures back to dollars, using your sales volume as a base, to get the actual cost of this problem area to your shop. By using this comparison, the study can give you specific direction as to where you can increase your current profits by focusing more effective management controls on areas that are not pulling their weight in your operation.

You now have a standard to investigate and improve your operation. Now that you are familiar with the use of this study, as you participate each year, make it a habit to thoroughly check your shop at least yearly to see how you measure with your peers in each of the categories.

KEEP IN MIND in working with this data, that when you participate, your firm's individual ratios are computed, then combined with individual ratios of other similar firms, rather than being based on a total dollar sum percentage for a group of companies. The result is a more representative ratio of the quick printing industry on a "common size basis"...where your shop is directly reflected and also used to evaluate other operations. A more specific guide, going step-by-step through a sample firm evaluation, is available in the first volume of the PIA Ratio Studies if you decide to perform a more detailed analysis.

HOW DO YOU COMPARE IN NORTH AMERICA?

The Individual Company Computer Printout is a fundamental part of the PIA Financial Ratio Study. It is a detailed, well-organized presentation of key financial information that encompasses every facet of your printing business. It contains data specific to your company that are not available in the published volumes of the study. The Individual Company Computer Printout, designed with you, the busy printing executive in mind, is a concise presentation of:

- Your firm's operating statement;
- Your firm's balance sheet;
- Supporting schedules for your firm's income statement and balance sheet; and
- Your firm's Return on Investment.

In addition:

- Your firm's financial data are expressed in dollars and ratio form;
- The ratios of your printing firm are compared side by side with the ratios of all other ratio study participants and "profit leaders," based on both sales revenue and value added. Ratios of survey participants and "profit leaders" that produce the same products and use the same manufacturing process are also presented for your immediate comparison;
- Using the same presentation format described in the previous item, the ratios of your printing firm are also compared side by side with the ratios of all survey participants and "profit leaders" that are approximately the same size in terms of sales; and
- Finally, "significant facts" statistics are presented to help you gauge where your company stands relative to industry "profit leaders" and the U.S. and Canadian printing industries as a whole.

Because of the detail that the Individual Company Computer Printout contains, it can quickly help you identify those areas and operations of your business that are running efficiently and those that are not. You'll be able to ascertain the seriousness of problems and how much corrective action is necessary. The bottom line is that you can purchase all of these data for a small fraction of what you would have to pay if you generated a similar analysis from scratch.

If you are part of the 1984 database, and have not already done so, I urge you to make the investment. If you are not part of the database, please consider participating in the 1985 PIA Financial Ratio Study and availing yourself of this particular service.

William A. Rose, II
Director
PIA Financial Services